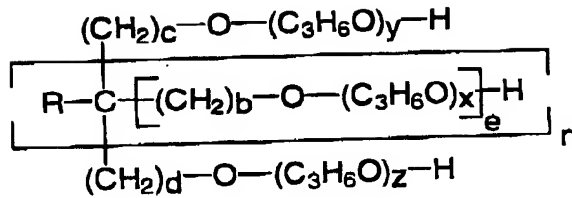


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(Formula III),

wherein n is a value from about 0 to about 10, wherein each R is independently selected from the group consisting of H, and C<sub>1</sub>-C<sub>30</sub> alkyl, wherein each b is independently a value from about 0 to about 2, wherein c and d are independently a value from about 0 to about 2, wherein b + c + d is at least about 2, wherein each e is independently a value of 0 or 1, wherein each x, y, and z is independently a value of from about 7 to about 100, and wherein x + y + z is greater than about 20; and

- B. a gel matrix comprising a cationic surfactant containing one long chain alkyl group and a tertiary or quaternary amine group, a solid fatty compound, and water.

### REMARKS

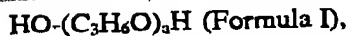
#### Application Amendments

Claims 1-11 are pending in this application and all presently stand rejected. By the amendments presented herein, Applicant has amended Claim 1 to more distinctly claim particular embodiments of the invention by claiming particular cationic surfactants that may be used in the invention. Basis lies, at least, at page 9, lines 23-25, of the Application as originally filed.

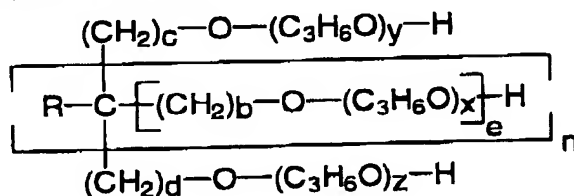
Therefore, reconsideration and withdrawal of the claim rejections under 35 U.S.C. 103 is asked to be considered.

#### INSTANT INVENTION

The invention in the above-entitled application is directed to A hair care composition includes a polypropylene glycol and a gel matrix. The polypropylene glycol is selected from a single-polypropylene glycol-chain segment polymer, a multi-polypropylene glycol-chain segment polymer, and mixtures thereof. The single-polypropylene glycol-chain segment polymer is of the formula:



wherein a is a value from about 20 to about 100. The multi-polypropylene glycol-chain segment polymer is of the formula:



(Formula III),

wherein n is a value from about 0 to about 10, each R is independently selected from the group consisting of H, and C<sub>1</sub>-C<sub>30</sub> alkyl, each b is independently a value from about 0 to about 2, c and d are

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independently a value from about 0 to about 2,  $b + c + d$  is at least about 2, each  $e$  is independently a value of 0 or 1, each  $x$ ,  $y$ , and  $z$  is independently a value of from about 7 to about 100, and  $x + y + z$  is greater than about 20. The gel matrix includes a cationic surfactant containing one long chain alkyl group and a tertiary or quaternary amine group, a solid fatty compound, and water.

### 35 U.S.C. § 103

Under 35 U.S.C. §103(a), Claims 1-11 were rejected as being unpatentable over Deckner et al. WO 95/03781 [hereinafter "Deckner et al."]. Applicant respectfully traverses these rejections as applied to Claims 1-11 in view of the arguments presented herein.

### Brief Summary of Deckner et al.

Deckner et al. relates to oil-in-water emulsion compositions that are useful for personal cleansing and for depositing an active ingredient upon the skin surface. The active ingredient in these compositions has a solubility parameter from about 7 to about 13. A preferred active ingredient is salicylic acid.

### Examiner's Contentions and Applicant's Arguments

To establish a *prima facie* case of obviousness, under 35 U.S.C. §103, three elements must be met: (a) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; and (b) there must be a reasonable expectation of success; and (c) the prior art reference(s) must teach or suggest all the claim limitations. *In re Fine*, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Merck & Co., Inc.*, 231 USPQ 375 (Fed. Cir. 1986); *In re Royka*, 180 USPQ 580 (CCPA 1974). See also, MPEP 2142. Applicant submits that the reference cited by Examiner fails to establish a *prima facie* case of obviousness.

The Examiner states that Deckner et al. discloses a personal care composition comprising a polypropylene glycol, a cationic surfactant, a fatty compound and water; the Examiner specifically pointing out page 10, lines 13-16; page 14, lines 31-34; page 15, lines 18-35; page 26, 24-25, and Examples I, II and IV etc. The Examiner further contends that the instant claims differ from the prior art in claiming a hair composition with the stipulated ingredients whereas the prior art discloses a cleaning composition comprising the claimed formulation and additional ingredients. However, the Examiner asserts that the prior art teaches that the composition can have different uses and additional ingredients (see page 10, lines 14-16). The Examiner further asserts that the applicants use of "comprising", an open-ended word in defining the claims does not preclude the addition of other ingredients into the composition. Further, the Examiner asserts that one of ordinary skill in the art would thus have been motivated to prepare compositions which can be used in the cleaning industry

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absent a showing of unexpected results or properties. Therefore, the assertion is that the claimed composition of the present application would have been suggested to one of ordinary skill in the art absent a showing of unexpected results.

Applicants respectfully traverse the Examiner's position that the present invention, as now amended, is simply a case wherein one of ordinary skill in the art could simply arrive at the present invention through the prior art disclosure or the mere recitation that Deckner et al can have different uses and additional ingredients (Page 10, lines 14-16).

Specifically, as now amended, the present invention incorporates a cationic surfactant ~~containing one long chain alkyl group and a tertiary or quaternary amine group~~. Such a cationic surfactant is distinctly different from the cationic surfactant disclosed in Deckner et al., which discloses a distearyl dimethyl ammonium chloride surfactant (DSDMAC surfactant) and specifically uses the DSDMAC surfactant in the Examples of Deckner et al. Mono-long alkyl cationic surfactants, as now required in the amended instant claims, has been found to provide superior conditioning benefits on wet hair when compared to di-long alkyl cationic surfactants (such as DSDMAC in Deckner et al.), when used in combination with the other required components, such as fatty alcohols. The wet conditioning benefit, such as improved spreadability on wet hair is appreciated specifically in hair care, and especially hair conditioning compositions of the present invention. There is no hint or suggestion that compositions as taught by Deckner et al. would provide the wet conditional benefits such as improved spreadability on wet hair. Thus, this does not meet the first criteria required to establish a *prima facie* case of obviousness.

Further, Deckner et al does not specifically disclose a hair care composition nor does Deckner et al teach such benefits in a hair care composition. Although the disclosure in Deckner et al. on page 10, lines 14-16 states that it is to be understood that the actives useful herein can in some instances provide more than one therapeutic benefit or operate via more than one mode of action, there is clearly no motivation in Deckner et al., to select specific components among a variety of required/optional components disclosed in Deckner et al., for the use in hair care compositions. Further, there is no motivation in Deckner et al. to select mono-long alkyl cationic surfactants among a variety of emulsifiers disclosed, for the specific use in a hair care composition. All of the cationic surfactants exemplified in Deckner et al. are di-long alkyl cationic surfactants (DSDMAC), which clearly teaches away from the present invention and further, would not provide the wet conditional benefits such as improved spreadability on wet hair.

The unexpected results for the specific components of the present invention were not simply achieved through routine experimentation. Therefore, one of skill in the art would clearly not have been motivated or led to the present invention from any of the disclosure in Deckner et al. Clearly, one of skill in the art would not have been able to merely substitute or add one of the components.

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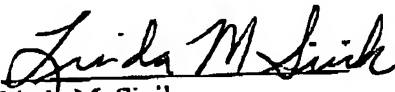
with a reasonable expectation of achieving improved results. Further, as mentioned above, other factors must also be evaluated and measured, in order to achieve improved benefits.

Therefore, Applicant has demonstrated that the present invention provides unexpected results over the prior art. Further, Applicant has demonstrated that that all of the criteria has not been met in order to establish a prima facie case of obviousness, particularly the elements that there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.

### Conclusion

Applicant has made an earnest effort to place their Claims in proper form, as well as to provide detailed remarks regarding the present invention, in view of Deckner et al. WHEREFORE, Applicant respectfully requests consideration of the amendments and remarks, and allowance of Claims 1-11.

Respectfully submitted,  
Jian-Zhong Yang et al.,

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April 22, 2003  
Customer No. 27752

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

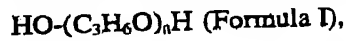
**In the Claims:**

**Claim 1 has been amended as follows:**

**1.(AMENDED) A hair care composition comprising:**

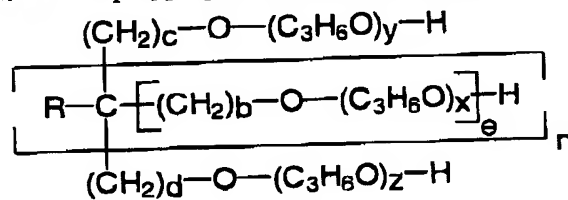
A. a polypropylene glycol selected from the group consisting of a single-polypropylene glycol-chain segment polymer, a multi-polypropylene glycol-chain segment polymer, and mixtures thereof;

wherein the single-polypropylene glycol-chain segment polymer is of the formula:



wherein  $a$  is a value from about 20 to about 100, and

wherein the multi-polypropylene glycol-chain segment polymer is of the formula:



wherein n is a value from about 0 to about 10, wherein each R is independently selected from the group consisting of H, and C<sub>1</sub>-C<sub>30</sub> alkyl, wherein each b is independently a value from about 0 to about 2, wherein c and d are independently a value from about 0 to about 2, wherein b + c + d is at least about 2, wherein each e is independently a value of 0 or 1, wherein each x, y, and z is independently a value of from about 7 to about 100, and wherein x + y + z is greater than about 20; and

B. a gel matrix comprising a cationic surfactant containing one long chain alkyl group and a tertiary or quaternary amine group, a solid fatty compound, and water.